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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,719	11/14/2006	Adolf Kuhnle	280147US0PCT	3290
22850	7590	10/16/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SCOTT, ANGELA C	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			10/16/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/556,719	<b>Applicant(s)</b> KUHNLE ET AL.	
	<b>Examiner</b> Angela C. Scott	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-6, in the reply filed on June 30, 2008 is acknowledged. The traversal is on the ground(s) that the claims were not interpreted in light of the specification and that the relationship between the groups was not considered. This is not found persuasive. The claims were interpreted in light of the specification. The specification speaks at length about the master batch and how it is from the composition of the master batch that all of the properties flow, which indicates that it is the composition of the master batch that is the contribution over the prior art. Also, the relationship between the groups was considered. Had the special technical feature, i.e., the master batch, been a contribution over the prior art, restriction would not have been proper. However, seeing as how it is not, the restriction is proper.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Objections***

Claim 2 is objected to because of the following informalities: In line 2 of claim 2, the word substituent is misspelled. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it seems as though the thermoplastic ingredient of the composition is mentioned twice, first in line 3, "at least one polymer," and secondly in the last two lines, "from 40% to 90% by weight of a thermoplastic carrier material." Appropriate correction is required.

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenhan et al. (US 2001/0018486) as further evidenced by Hsiao et al. (US 2003/0018109).

Regarding claims 1, 4 and 5, Lichtenhan et al. teaches flame retardant thermoplastic materials comprising from 1 to 80 weight percent of preceramic polymers (§9) such as polyhedral oligomeric silsesquioxane (POSS) monomers (§26) blended with thermoplastics such as polyesters and polyamide copolymers (§31). The balance of the composition is the thermoplastic, in this case, from 20 to 99 weight percent.

Regarding claim 6, in providing basic background information about POSS molecules, Hsiao et al. teaches that the POSS molecules are of nanometer size (§15).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtenhan et al. (US 2001/0018486) as applied to claim 1 above, and further in view of James, Jr. et al. (US 2002/0128414).

Lichtenhan et al. teaches the composition of claim 1. Lichtenhan et al. does not teach that the POSS contains only one substituent of type X. However, James, Jr. et al. teaches a POSS molecule containing only one substituent of type X as a preferred structure (¶25 and structure III). Lichtenhan et al. and James, Jr. are analogous art because they are from the same field of endeavor, namely that of polymers containing POSS compounds. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the specific compound of James, Jr. et al. in the composition of Lichtenhan et al., and would have been motivated to do so because it has been found that POSS compounds are especially effective in improving the oxygen permeability and flexure resistance of polymeric materials (¶32).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtenhan et al. (US 2001/0018486) as applied to claim 1 above, and further in view of Hsiao et al. (US 2003/0018109).

Lichtenhan et al. teaches the composition of claim 1. Lichtenhan et al. does not teach the addition of further additives to the composition. However, Hsiao et al. does teach using additives such as fillers and surfactants in a POSS compound/polymer blend (¶42). Lichtenhan et al. and Hsiao et al. are combinable because they are from the same field of endeavor, namely that of polymers containing POSS compounds. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use additional additives, as taught by Hsiao et al., in the composition, as taught by Lichtenhan et al., and would have been motivated to do so because these are common additives used in the art in order to make usable commercial articles from the composition.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 8:30am to 5:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./  
Supervisory Patent Examiner, Art Unit 1796  
14-Oct-08

/A. C. S./  
Examiner, Art Unit 1796